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fluorescence quenching

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<b>Contents</b>	Pages	13
	Tables	2
	Figures	4

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**Abstract** : In recent times, the oxygen-quenching fluorescent-dye-incorporated paint is emerging as a good sensor for surface-flow visualization studies. The first step in developing this paint is to develop a reliable optical sensor for oxygen, based on fluorescence quenching. In this document, the theoretical principles involved and the experimental approaches for development of optical oxygen sensor are briefly outlined. Besides, the candidate materials suitable for investigation and the methods of immobilising them on a solid matrix for studying their properties are also discussed.